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PROVISIONAL SPECIFICATION.

Apparatus for Producing Local Anæsthesia.

I, ROBERT TELSCHOW of Charlottenstrasse 63 Berlin in the Empire of Germany, Doctor of Medicine do hereby declare the nature of this invention to be as follows:—

The novelty of this invention is, that ethyle chloride is mixed with air and
5 conducted by means of a pumping device placed on a tube, whereby such mixture is brought upon the part of the body to be treated, an intense anaesthesia being effected. Also the dropping or spilling of the ethyle chloride so inconvenient in the hitherto used devices is prevented in consequence of the strong air admission, the liquid vaporises quickly and forms ice, whereby the anaesthesia liquid remains
10 localised.

It is evident that instead of ethyle chloride other suitable substances can be used.

The apparatus consists of an air blowing or pumping device which is put upon a tube. This tube enters into a mixing tube. On the front end of this mixing
15 tube is an opening, through which the mixture of ethyle chloride and air is compressed. On the back end of the mixing tube is connected the vessel or a glass tube containing the anaesthesia liquid. For tightening the joints rubber sockets may be used.

The apparatus is operated in the following manner: The operator takes the
20 vessel containing the liquid in the one hand and the pump or blowing device such as a rubber ball in the other. The ethyle chloride flows towards the opening and arrives by means of the pressure given by the air blowing ball into the mixing tube and thence upon the part of the body to be treated.

Dated this 16th day of November 1896.

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HERBERT HADDAN & Co.,
Agents to Applicant.

COMPLETE SPECIFICATION.

Apparatus for Producing Local Anæsthesia.

I, ROBERT TELSCHOW of Charlottenstrasse 63 Berlin in the Empire of Germany,
30 Doctor of Medicine do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

The purpose of this invention is to accelerate for local ethyle-chloride-anaesthesia the vaporising of the ethyle-chloride by introducing air which causes

[Price 8d.]

Telschow's Apparatus for Producing Local Anæsthesia.

an immediate congelation so that the dropping or spilling of the unused ether so inconvenient in the hitherto used apparatus is avoided. This is attained in the most perfect manner by the hereinafter described apparatus.

The apparatus shown in the annexed drawing consists of an air blowing or pumping device $a a^1$, which is attached to the air conducting tube b . The tube b 5 joins the tube m . In the tube m there is arranged a small tube m^1 through which the ethyle-chloride escapes. On the back end of the tube m there is fixed the vessel or glass tube g containing the liquid, and this fixing is effected in either of two ways, as can be seen from Figs. 1 and 2. In Fig. 1 the tube m is screwed on a nipple on the end of the glass tube or receiver by means of screw threads. 10 In Fig. 2 the tube m is simply slid over the neck of the glass tube or of a nipple thereon. In the one method of fixing the rubber discs c (Fig. 1) and in the other the rubber socket c^1 (Fig. 2) which surrounds and presses on the outside of tube m serve for effecting a tight closure between the vessel g and the tube m . The tube m is provided with a closure valve h which serves for closing the apparatus 15 after use, in order to avoid the useless escape of ether.

This apparatus is used in the following manner:—

After the closure valve h has been opened the glass vessel g is taken in one hand and the rubber ball a in the other hand. The ethyle-chloride then rises through the small tube m^1 to the mouth of the apparatus and is here met by the 20 air introduced through the tubes b and m , by means of the air pumping or blowing device a , the mixture of ethyle-chloride with air is directed on the place where local anaesthesia is required. In consequence of the immediate congelation of the mixture any collecting or dropping of ether is absolutely avoided and anaesthesia is effected at once. It is impossible for the tubes to freeze as the air is brought 25 in contact with the ether only at the mouth of the apparatus. During the operation to be performed the valve is closed and prevents the ether from escaping. The apparatus can be used for local anaesthesia in all surgical operations. It is especially convenient for dental purposes as the collecting of the unused ether in the mouth is impossible in consequence of the immediate congelation. By 30 lengthening the tube a^1 the air pumping or blowing device can be arranged to be operated by the foot so that the operator has one hand free for the operation.

Having now particularly described and ascertained the nature of this invention and in what manner the same is to be performed I declare that what I claim is:—

1. An apparatus for use in local ethyle-chloride-anaesthesia in which the ethyle- 35 chloride or another appropriate ether escaping through the small tube m^1 mixed at the mouth of the apparatus with the air introduced by a blowing device $a a^1$ through the tube b and m and is directed on the place to be treated for the purpose of instantaneous anaesthesia.

2. In the apparatus as described in Claim 1 the construction comprising the 40 ring c and the socket c^1 .

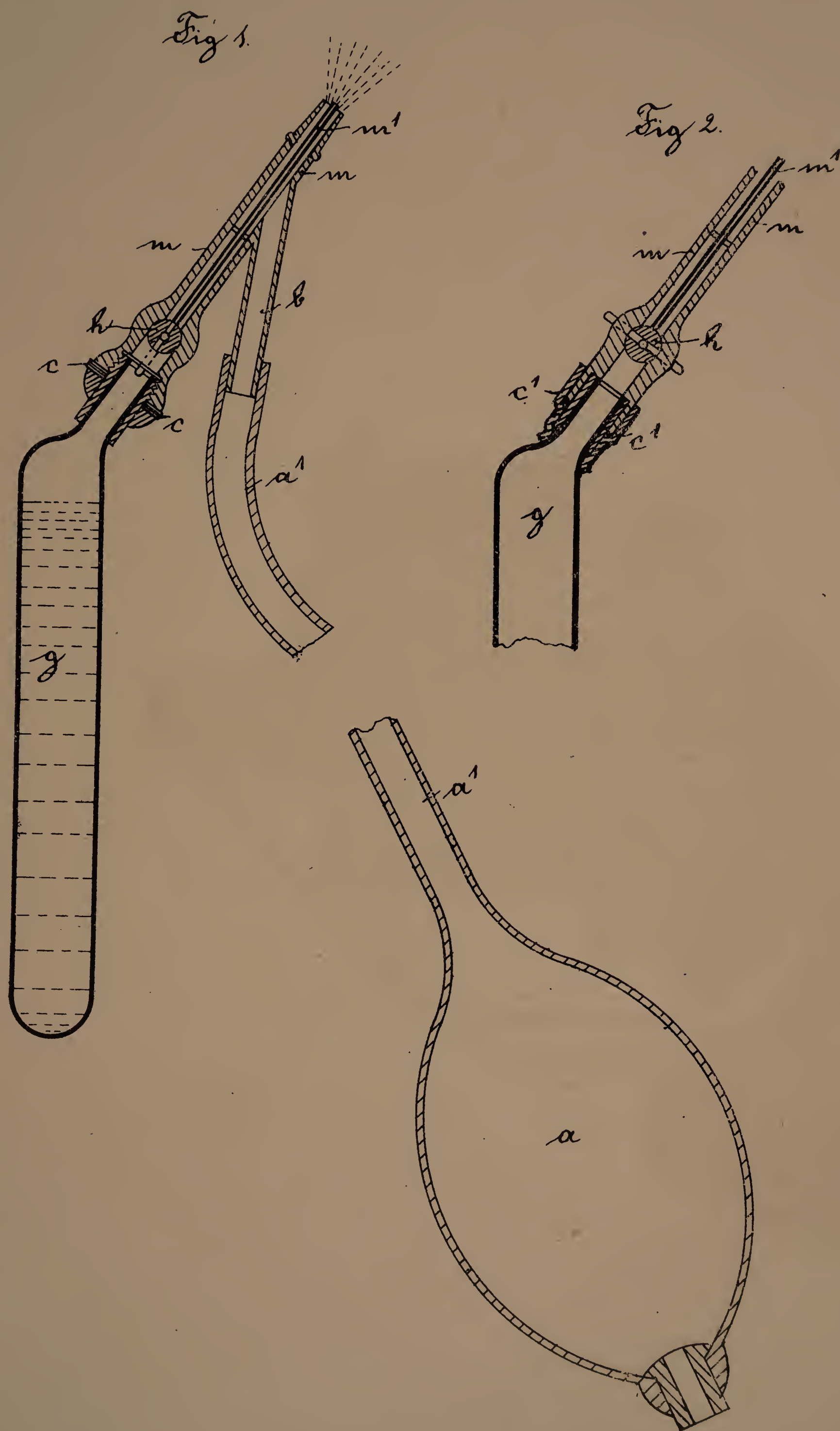
3. In the apparatus as described in Claim 1 the construction comprising the closure valve h on the tube m for the purpose of preventing the ether from escaping.

Dated this 13th day of August 1897.

HERBERT HADDAN & Co.,
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[This Drawing is a reproduction of the Original on a reduced scale.]

